2021 年度

Academic Year 2021

名古屋大学大学院生命農学研究科
博士後期課程

学生募集要項

(一般入試［英語版］)

Guidelines for Admission to the Doctoral Program

名古屋大学大学院生命農学研究科

Graduate School of Bioagricultural Sciences

Nagoya University

名古屋大学大学院生命農学研究科のアドミッション・ポリシー

（１）入学者受入れの方針

生命農学を探究するために必要な学力を有し，高い専門性を持った指導者や技術者として，知識と能力を社会に役立てようという志をもつ国内外の人材を求めています。

（２）選抜の基本方針

「生命農学関連専門科目の知識・理解力と論理的思考力・応用力」を学力検査によって，「英語能力」を外部試験成績によって評価します。また，研究能力を修士論文により評価します。さらに「志望する研究分野に対する明瞭な志向と研究への熱意」，および「その分野に関連する基本的な知識と理解力」を面接・口述試験によって評価し，入学者を選抜します。

個人情報の取り扱いについて

出願にあたって提供された住所・氏名・生年月日その他の個人情報は，入学選抜，合格発表，入学手続及びこれらに付随する事項並びに入学後の学務業務における学籍・成績管理を行うためのみに利用します。

また，取得した個人情報は適切に管理し，利用目的以外に使用いたしません。

Treatment of information on individuals (at Nagoya University)

Any information regarding individuals which has been obtained from application documents, shall be used for the purposes of notifications concerning the application in hand, entrance examinations, announcements of results of entrance examinations, enrollment procedures and any other items subsidiary to these situations. It will also be used for the administration of the school register and for academic records connected with student academic affairs after enrollment. Furthermore, any information obtained concerning individuals with be treated appropriately, and shall never be used for any reason other than its administrative purpose.

Information for applicants for admission to the Doctoral Program, Graduate School of Bioagricultural Sciences, Nagoya University, beginning in April 2021

1. Requirements for applicants

Applicants for admission to the Doctoral Program at Graduate School of Bioagricultural Sciences, Nagoya University must come under one of the following conditions:

(1) Applicants who have a master's degree or a professional degree, or who will receive a master's degree or a professional degree by March 31, 2021.

(2) Applicants who have obtained (or will obtain by March 31, 2021) in a foreign country a professional degree equivalent to the master's degree of Nagoya University.

(3) Applicants who have obtained (or will obtain by March 31, 2021) a degree equivalent to a master's degree or a professional degree, by taking in Japan correspondence courses offered by a foreign school.

(4) Applicants who have obtained (or will obtain by March 31, 2021) a degree equivalent to a master's degree or a professional degree in Japan, by completing one of the relevant courses at an educational institution that is recognized by the authorities of a foreign country as an institution offering graduate courses and is approved by the Ministry of Education, Science, Culture and Sports, Japan.

(5) Have completed the course of the United Nations University and have received a degree equivalent to a Master's degree, or will have completed the course of the United Nations University and will have received a degree equivalent to a Master's degree by the end of March 31, 2021. The United Nations University refers the university established by the United Nations General Assembly's resolution of December 11, 1972. The university is provided for under Paragraph 2 of Article 1 of the Act on Special Measures (Law No. 72, 1976) concerning the Implementation of the Agreement between the United Nations and Japan relating to the Headquarters of the United Nations University.

(6) Persons who have completed the curriculum of a foreign school, educational institution designated under criterion (4), or United Nations University, have passed the equivalent of a basic skills review for doctoral thesis research or is scheduled to pass by March 31, 2021, and have been recognized as having scholastic ability equivalent to or higher than that of persons who have a master's degree.

(7) Applicants approved by the Minister of Education, Culture, Sports, Science and Technology (1994 Ministry Bulletin, Vol. 123).

Applicants must have either graduated from a university or completed a course of 16 years of formal education, followed by research for at least two years at a university or research institute. The results of this research must be recognized by the Graduate School of Bioagricultural Sciences, Nagoya University as the equivalent of a master's degree.

NOTE: See "Candidates applying under requirement (7)" on page 7

(8) Applicants who are recognized by this Graduate School to be equivalent in academic level to a graduate student with a master's degree or a professional degree.

NOTE: See "Candidates applying under requirement (8)" on page 8.

2. Academic Department/Laboratory offering doctoral programs and maximum number of enrollment

Department	Laboratory	Number to be admitted
Forest and Environmental Resources Sciences※	Resources Cycling in Pedosphere, Forest Environment and Resources, Forest Hydrology and Disaster Mitigation Science, Forest Ecology, Forest Protection, Forest Resource Management,	

	Forest Resources and Society, Plant-Soil Systems, Forest Chemistry, Biomass Resource Utilization, Wood Physics, Timber Engineering, System Engineering for Biology	A Several
Plant Production Sciences	Plant Physiology and Morphology, Plant Genetics and Breeding, Crop Science, Crop Stress Regulation, Horticultural Science, Plant Pathology, Plant Immunology, Information Sciences in Agricultural Lands, Food Economics, Plant Gene Function, Agrigenome, Plant Genomics and Breeding, Bioindustry, Tropical Bioresources, Genetic Information for Bioresources, Practical Studies in Africa, Practical Studies in Asia	
Animal Sciences	Animal Genetics and Breeding, Genome and Epigenome Dynamics, Animal Morphology, Animal Integrative Physiology, Animal Reproduction, Animal Nutrition, Animal Production Science, Avian Bioscience, Fish Biology, Sericulture and Entomoresources, Applied Entomology	
Applied Biosciences	Organic Chemistry, Bioactive Molecules, Chemical Biology of Natural Products, Polymer Chemistry, Food and Biodynamics, Applied Enzymology, Molecular Biotechnology, Molecular and Cellular Regulation, Molecular Bioregulation, Glyco-Life Science, Animal Cell Physiology, Nutritional Biochemistry, Soil Biology and Chemistry, Applied Microbiology, Plant Signaling, Biochemistry, Molecular and Functional Genomics, Photosynthesis Research, Developmental Signaling Biology, Animal Cell Function, Plant Cell Function, Plant Metabolic System, Metabolic Balance of Ecosystem	

Applicants must ask the Laboratory in which he/she wishes to study for study topics before application.
NOTE: See the attached "Laboratories, Areas of Research, and Staff."

※ Students who have been accepted in the Department of Forest and Environmental resource Sciences have the opportunity to participate in the Integrated Environmental course. This course was initiated in 2009 in collaboration with the Graduate School of Environmental Studies and offers education, guidance and research opportunities for suitable graduate students. Further information on this program is available from the Students Affairs Section in the Graduate School of Bioagricultural Sciences.
Applicants must ask the Laboratory in which he/she wishes to study for study topics before application.
NOTE: See the attached "Laboratories, Areas of Research, and Staff."

3. Required documents for application

(1)	Application form / Photograph Card / Examination Registration Card	NOTE: Download and fill out the prescribed form from the Graduate School website.

(2)	A photo	A photograph taken within the last three months, affixed to Photograph card.
(3)	Academic Transcripts	Original copies of official transcript from the undergraduate school (including liberal arts) and the graduate school the applicant has attended. ※If they are not written in Japanese or English, please attach an English translation version.
(4)	Certificate of master's degree or of being awarded a master's degree*	
(5)	TOEFL or TOEIC score sheet	See Page 4, "6. Examinations", Item 1 "Submission of score sheets for foreign language (English) examination" for details. Applicants exempted from the written examination through application qualifications do not need to submit these.
(6)	A photo copy of Master's Thesis (or its equivalent) and three copies of its summary (Japanese or English)	If the Master's Thesis (or its equivalent) has not been completed, three copies of its summary in around 1,500 words English must be submitted at the time of application.
(7)	Application fee (30,000 yen by postal money order)	NOTE: Do not fill out the address/name for specified receiver on the postal money order from. http://www.post.japanpost.jp/bank/exchange/ However, applicants who will be graduating from the Master's Program of Nagoya University and will proceed to the Doctoral Program need not pay the application fee.
(8)	Certificate of receipt	NOTE: Download and fill out the prescribed form from the Graduate School website, writing only applicant's name.
(9)	Return envelope (For the receipt of the Examination Form)	A return envelope to examination registration card. Enclose a self-addressed envelope (12×23cm) with the Applicant's adress, postal code, and name clearly indicated. Affix a 374 yen stamp to the envelope.
(10)	Letter of approval for taking examination if applicants have a job, using the prescribed form.	NOTE: Needed only for applicants working at a government/public office or a company. Download and fill out the prescribed form from the Graduate School website.
(11)	Personal History for Foreign Applicants	NOTE: Download and fill out the prescribed form from the Graduate School website.
(12)	A photo Copy of Residence Card (both sides).	Needed only for applicants without Japanese nationality, excluding those with official approval of permanent residency in Japan.

* Applicants who have graduated from a university in China, should print the certificate issued by the China Academic Degree and Graduate Education Development Center (CDGDC) and submit it along with other application documents.

The details of this process can be checked on the CDGDC website (http://www.cdgdc.edu.cn). The issuance of certificates may take time, so applicants should start the process early.

The applicant who has submitted the required certificates to our office through CDGDC within the past one year, should consult with us.

4. Application Procedures

The completed application form and required items (1) ~ (12) listed above must be submitted to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University, from 9:00 till 11:30 a.m. and from 1:30 to 4:00 p.m. from November 24 to November 26, 2020.

Applications can also be sent by mail to our Section. (Address: Furo-cho, Chikusa-ku, Nagoya 464-8601)

When sending by mail, indicate on the envelope "Application for Graduate School" in red ink. It must reach us by 16:00 on November 26, 2020 via registered mail.

5. Notice

The applicant cannot make any changes or ask for a refund after submitting the application form.

Applicants who are residing in a country other than Japan should consult the Student Affairs Section before submitting documents.

6. Examinations

(1) Submission of score sheets for foreign language (English) examination (Applicants under requirement (7) or (8) must submit it.)

TOEFL or TOEIC scores will be used as the means of assessment for the foreign language (English) examination. Note: Applicants fulfilling requirements (1),(2),(3),(4),(5) or (6), are exempted.

1. Examination Method

Submit the score sheet for the results of TOEFL, TOEIC or both. There will be no written examination. The score from either TOEFL or TOEIC will be calculated using the following method, and will be adopted as your foreign language (English) score.

If the applicant submits both TOEFL and TOEIC scores, these will be converted and the higher score will be adopted.

■For TOEFL

English score = 50 + (TOEFL-iBT score – 50) × 5/3 (converted scores of 100 points or higher will all be treated as 100 points)

■For TOEIC

English score = TOEIC score/ 10

＊Any converted score of less than 50 points will count as a failing score. In this case, please be aware that the application fee is still non-refundable.

2. Eligible scores

Scores from either TOEFL-iBT or TOEIC (Listening & Reading Test) can be submitted. TOEFL-ITP, TOEIC Institutional Program (IP) Tests, TOEIC (Speaking & Writing Test), TOEIC (Speaking Test), and TOEIC (Bridge Test) will not be accepted.

International applicants with TOEIC-PBT scores should consult the Student Affairs Section before submitting documents.

3. Submission of score sheets

For TOEFL, an original of the Examinee Score Report should be submitted with the application documents by November 26, 2020.

For TOEIC, an original of the Official Score Certificate should be submitted with the application documents by November 26, 2020.

*TOEFL the Examinee Score Report can be returned if a self-addressed envelope (12×23cm) is enclosed, with a 374 yen stamp affixed. TOEIC Official Score Certificates cannot be returned.

4. Period of validity of score sheets

Tests from 2 years before the entrance examination date (i.e. January 5, 2019 or later) to those for which results can be submitted by the application deadline are valid.

(2) Oral examination

Date: January 5, 2021 Time: one and half hours during 10:00 to 17:00

(or Date: January 6, 2021 Time: one and half hours during 9:00 to 12:00)

(Details will be notified on January 5)

Matter of Oral Examination

Fundamental knowledge in the target academic area in which the applicant wishes to study, research plan, master's thesis, etc., and proficiency of foreign language (English)

(3) Place of Examination

Graduate School of Bioagricultural Sciences,

Nagoya University (School of Agricultural Sciences)

500m eastward from the city bus stop "Nagoyadaigaku" or the subway station "Nagoyadaigaku", or 500m southward from the subway station "Higashiyama-koen"

7. Announcement of examination results

Date: January 6 (evening), 2021

Place: Noticed board at Graduate School of Bioagricultural Sciences (It will be posted on Graduate School of Bioagricultural Science website: http://www.agr.nagoya-u.ac.jp)

NOTE: Applicants will also be notified by mail.

8. Enrollment Procedures

(1) Detailed enrollment procedures will be notified by mail beginning in Mach, 2021.

(2) Registration fee: 282,000 yen (expected)

(3) Tuition: 267,900 yen per semester (535,800 yen per year) (expected)

NOTE: In case of any revision in tuition, the new rate will be made effective on and after the date of revision.

(4) Registration date: The matriculation date is scheduled to be in late March 2021.

9. Others

(1) Further notifications for the examination will be given on the notice board on the date of

examination. Examinees must be seated in the examination room 20 minutes before the examination starts.

(2) For applicants with disabilities or other special needs

Applicants with disabilities or other special needs that require reasonable accommodations and adjustments for taking the entrance examinations due to their disabilities or other special needs should submit the following documents to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University by October 30, 2020.

1) Application form for reasonable accommodations or adjustments: On A4 size paper in the format of your choice, please provide information regarding the condition of your disabilities or other special needs, which specific accommodations and adjustments are required for you to take the entrance exam and why they are necessary.
2) Medical certificate, any certificates of your disability (e.g., "Shogaisya-techo" in Japan), etc.: Applicants must submit Medical Certificates or other alternative documentation that provides detailed information regarding the limitation on a major life activities caused by the disabilities or other special needs, and provides sufficient justification for the requested accommodations or adjustments. (Copies acceptable)
3) Third Party Statements: Applicants must obtain and submit statements from third parties that are familiar with the applicant's disabilities or special needs and can attest to the resulting limitation on a major life activities and required accommodations (Observations and opinions from medical professionals, relevant faculty from the applicant's school, and other specialists)
4) Other Documents: Applicants may, if desired, submit additional documentation providing additional information regarding their disabilities or other special needs and the recommended accommodations or adjustments.

For inquiries regarding reasonable accommodations or adjustments for taking the entrance examination or while attending Nagoya University, please feel free to contact the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University by the application deadline.

10. For more information on the examinations, ask:

Student Affairs Section,
Graduate School of Bioagricultural Sciences, Nagoya University
Furo-cho, Chikusa-ku, Nagoya 464-8601
TEL: (052) 789-4967(English), 4299(Japanese)
E-mail: kyomu@agr.nagoya-u.ac.jp, http://www.agr.nagoya-u.ac.jp

< Changes in examination schedule and procedures due to unforeseen circumstances >

The examination schedule and selection measures may be modified in the event of an outbreak of infectious disease or other unforeseen circumstances. Please check the website regularly for the latest notices, especially in the days preceding the application and examination periods.

■ Website of Graduate School of Bioagricultural Sciences, Nagoya University
(Admission Information)
http://www.agr.nagoya-u.ac.jp/english/admission/index.html

■ Contact info:
Student Affairs Section, Graduate School of Bioagricultural Sciences,
Nagoya University
Tel (052)789-4967, 4299

Candidates Applying under Requirement (7)

1. Candidates applying under Requirement (7) must meet the following conditions:

By March 31, 2021, applicants must have graduated from a university, followed by research for at least 2 years at a research institute. Applicants must also have published research papers, books, made research presentations, or hold patents recognized as the equivalent of a master's thesis or above.

2. Application for Certificate of Approval as Eligible Applicant.

Applicants under Requirement (7) must either submit or mail the following documents ①～⑨ by or on October 16, 2020 to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University. The set of documents, if mailed, should have "Application for Certificate of Approval as Eligible Applicant." written in red ink on the envelope, and be sent by registered mail.

Applicants will be notified of the results after November 9, 2020.

Documents required:

① Application Form for the application under Requirement (7)
NOTE: Download and fill out the prescribed form from the Graduate School website.

② Certificate of graduation from a university

③ Summary of research results.
Note: It should be made up in paper style by the applicant, with approx. 4,000 characters in Japanese (1,500 words in English). Download and fill out the prescribed form from the Graduate School website.

④ Bibliography
Note: Download and fill out the prescribed form from the Graduate School website.

⑤ Certificate of academic background
Note: Download and fill out the prescribed form from the Graduate School website. The form should be signed by the applicant's academic advisor or other proper authority.

⑥ Letter of recommendation written by the head or other proper authority of the belonging institution. Download and fill out the prescribed form from the Graduate School website.

⑦ A copy of research papers, books, research presentations, or patents, etc.

⑧ Personal History for Foreign Applicants
Note: Download and fill out the prescribed form from the Graduate School website.

⑨ A return envelope to receive results of the application. Enclose a self-addressed envelope (12× 23cm) with a 374 yen stamp affixed. (If the applicant resides overseas,please enclose a sufficient International Reply Coupon (IRC) to cover the required return postage.)

3. Application Procedures

The candidates approved as Eligible Applicants can apply for admission to the Doctoral Program by submitting the set of documents specified on page2.

The set of documents for application must be submitted to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University, from 9:00 till 11:30 a.m. and from 1:30 to 4:00 p.m. from November 24 to November 26, 2020. Applications can also be sent by mail to our office. (Address: Furo-cho, Chikusa-ku, Nagoya 464-8601)

When sending by mail, indicate on the envelope "Application for Graduate School" in red ink. It must reach us by November 26, 2020 by registered mail.

4. Notice

Application documents cannot be altered or returned after submission for any reason. The application fee will not be returned or refunded.

Candidates Applying under Requirement (8)

1. Candidates applying under Requirement (8) must meet the following conditions:

Applicants under Requirements (8) must be recognized by the Graduate School of Bioagricultural Sciences, Nagoya University to be equivalent in academic level to a graduate student with a master's degree or a professional degree, and must reach 24 years old by March 31, 2021.

* Applicants who have graduated from any school in China must ask the Student Affairs Section, Graduate School of Bioagricultural Sciences for details.

2. Application for Certificate of Approval as Eligible Applicant.

Applicants under Requirement (8) must either submit or mail the following documents by or on October 16, 2020 to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University. The set of documents, if mailed, should have "Application for Certificate of Approval as Eligible Applicant." written in red ink on the envelope, and be sent by registered mail.

Applicants will be notified of the results after November 9, 2020.

Documents required:

① Application Form for the application under Requirement (8)

NOTE: Download and fill out the prescribed form from the Graduate School website.

② Reference material showing that the applicant is equivalent in academic level to a graduate student with a master's degree or a professional degree;

*Submit one or more relevant materials listed below. For example: 1) or3)

1) Applicants who have graduated or will be graduating from a junior college, technical college, special school or other school:

- Diploma or certificate of graduation/ expected graduation
- Official transcript (academic record)
- Syllabus

2) Applicants who have technical/ professional career:

- Certificate of employment, specifying its period and matter of tasks, and report of his/her career achievements prepared by the applicant (form not specified).

3) Applicants with academic work:

- Certificate of academic background

Note: Download and fill out the prescribed form from the Graduate School website. The form should be signed by the applicant's academic advisor or other proper authority.

- Bibliography

Note: Download and fill out the prescribed form from the Graduate School website.

-Summary of research results

Note: It should be made up in paper style by the applicant, with approx. 4,000 characters in Japanese (1,500 words in English). Download and fill out the prescribed form from the Graduate School website.

4) Applicants with published research papers or books, research presentations, patents, etc.:

- Any reference material showing each

③ Others

- Any material for examination purposes (e.g.: Letter of recommendation)

④ Personal History for Foreign Applicants

Note: Download and fill out the prescribed form from the Graduate School website.

⑤ A return envelope to receive results of the application. Enclose a self-addressed envelope (12cm× 23cm) with a 374 yen stamp affixed.

(If the applicant resides overseas,please enclose a sufficient International Reply Coupon (IRC) to

cover the required return postage.)

3. Application Procedures

The candidates approved as Eligible Applicants can apply for admission to the Doctoral Program by submitting the set of documents specified on page 2.

The set of documents for application must be submitted to the Student Affairs Section, Graduate School of Bioagricultural Sciences, Nagoya University, from 9:00 till 11:30 a.m. and from 1:30 to 4:00 p.m. from November 24 to November 26, 2020. Applications can also be sent by mail to our office. (Address: Furo-cho, Chikusa-ku, Nagoya 464-8601)

When sending by mail, indicate on the envelope “Application for Graduate School” in red ink. It must reach us by November 26, 2020 by registered mail.

4. Notice

Application documents cannot be altered or returned after submission for any reason. The application fee will not be returned or refunded.

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Laboratories, Areas of Research, and Staff

Graduate School of Bioagricultural Sciences, Nagoya University

Department	Laboratory	Area of Research	Staff			
			Professor	Associate Professor	Lecturer	Assistant Professor
1. Forest and Envioronmental Resources Sciences	1. Resources Cycling in Pedosphere	Cycles of carbon, nitrogen, and trace elements in pedosphere and related environments. Chemical structure, function, and dynamics of soil organic matter, in particular humic substances.	WATANABE, Akira			
	2. Forest Environment and Resources	Studies on regulatory mechanism of material cycling in forest based on environmental chemistry and plant physiology, and application to environmental problem.	TAKENAKA, Chisato (Scheduled to retire in March 2021)			
	3. Forest Hydrology and Disaster Mitigation Science	We aim to propose future of human-nature interaction, which has multi-layered and -meaning characteristics, from local to global scale, through investigating water cycle dynamics in various land cover including forest and vulnerability to disaster in community.		TANAKA, Takafumi		KOTANI, Ayumi
	4. Forest Ecology	Our laboratory covers a wide range of studies related to forest ecology, forest genetics, and forest ecophysiology. Especially structure, dynamics and functions in forest communities. Also genetic variation, reproduction, ecophysiology, dry matter production and balance as well as theoretical modeling in tree populations.	TOMARU, Nobuhiro	NAKAGAWA, Michiko	OGAWA, Kazuharu	
	5. Forest Protection	Forest entomology focusing on insect-fungus and insect-plant interactions. Forest ecosystem conservation based on the management of biological communities.	HIJII, Naoki (Scheduled to retire in March 2022)	KAJIMURA, Hisashi		TOKI, Wataru
	6. Forest Resource Management	Research on development of cutting edge measurement technology of forest, construction of theory concerning forest resource management, development of future planning and evaluation method of forest management.	YAMAMOTO, Kazukiyo			
	7. Forest Resources and Society	Studies on forest management policy for realizing both forest conservation and improvement of local livelihoods, forest certification, participatory forest management, community forestry and timber procurement strategies of enterprise	HARADA, Kazuhiro	IWANAGA, Seiji		
	8. Plant-Soil Systems	Studies on nutrient dynamics in forest ecosystems. Our specific focus is to evaluate forest health by disentangling tripartite interactions among plant, soil, and microbes.		TANIKAWA, Toko		
	9. Forest Chemistry	Studies on biochemistry of lignification, chemistry of wood extractives, chemistry of lignin, preparation of functional materials from lignin, pulp and paper science, and cellulose chemistry.	FUKUSHIMA, Kazuhiko	MATSUSHITA, Yasuyuki	AOKI, Dan	
	10. Biomass Resource Utilization	Isolation and structural elucidation, biosynthesis, distribution and utilization of wood extractives.		IMAI, Takanori		
	11. Wood Physics	Generation processes of growth stress and wood properities during tree growth, Growth and maturation of tropical plantation species, Analysis of reaction wood formation by molecular approach , Physical and mechanical properties of wood materials.	YAMAMOTO, Hiroyuki	YOSHIDA, Masato	MATSUO, Miyuki	
	12. Timber Engineering	Mechanical durability in structural use of wood and wood-based materials, Analysis of mechanical behavior in timber structure, Quality-of-material distribution and the plan for demand and supply of forest resources, Wood utilization in urban design.		YAMASAKI, Mariko		ANDO, Kosei
	13. System Engineering for Biology	Studies on measurement system and precise mechanical process for biological resources.	TSUCHIKAWA, Satoru		INAGAKI, Tetsuya	

(as of October 1, 2020)

Laboratories, Areas of Research, and Staff

Graduate School of Bioagricultural Sciences, Nagoya University

Department	Laboratory	Area of Research	Staff			
			Professor	Associate Professor	Lecturer	Assistant Professor
2. Plant Production Sciences	14. Plant Physiology and Morphology	Studies from both aspects of structure and function on functional differentiation of plant cells and tissues, and response to environmental stresses.	TANIGUCHI, Mitsutaka			OI, Takao
	15. Plant Genetics and Breeding	Genetical and developmental research by biotechnological analyses with respect to evolution, morphogenesis, gene expression, and functional development of plant cultivated species.	NAKAZONO, Mikio	TAKAHASHI, Hirokazu		
	16. Crop Science	Physiological and ecological studies on crop production: nutrient acquisition and growth response to environment.	KONDO, Motohiko	YANO, Katsuya		SUGIURA, Daisuke
	17. Crop Stress Regulation	Physiological and molecular mechanism of crop stress tolerance	YAMAUCHI, Akira (Scheduled to retire in March 2022)		MITSUYA, Shiro	
	18. Horticultural Science	Physiological, biochemical and molecular biological approarch to the mechanism of flower formation, flower opening and fruit set, growth of horticultural crops to improve their productivity.	MATSUMOTO, Shogo	SHIRATAKE, Katsuhiro	OTAGAKI, Shungo	
	19. Plant Pathology	Physiological, biochemical and molecular-biological researches on defense mechanisms of plants against plant pathogens, and interactions of plant pathogens and beneficial environmental microorganisms with host plants. Development of biocontrol measures and understanding of its mechanisms.		TAKEMOTO, Daigo CHIBA, Soutaro		SATO, Ikuo
	20. Plant Immunology	Studies on the molecgular mechanisms of plant immune response in plant-pathogen interactions.		YOSHIOKA, Hirofumi		
	21. Information Sciences in Agricultural Lands	Studies to improve agricultural production by analyzing information from field (crop DNA sequences, morphology, physiological characteristics, yield, soil, environment, etc.) by means of informatics/ data science	MURASE, Jun	DOI, Kazuyuki		NISHIUCHI, Shunsaku
	22. Food Economics	Socioeconomic studies on food system, regional resource management and multifunctional roles of agriculture.	TOKUDA, Hiromi	TAKESHITA, Hironobu		MIURA, Satoshi
	23. Plant Gene Function	Studies on plant gene function and its application.	ASHIKARI, Motoyuki			NAGAI, Keisuke
	24. Agrigenome	Studies on genomic information for develpment of useful traits of rice and creation of novel plant regulators.	MATSUOKA, Makoto(Scheduled to retire in March 2021)			
	25. Plant Genomics and Breeding	Study on plant genomics and breeding to solve various problems of modern society, i.e. environment, energy, food problems, etc.	SAZUKA, Takashi			
	26. Bioindustry	Studies on plant grafting and systemic signaling in plants to improve plant resources for future sustainability.	UEGUCHI, Miyako	NOTAGUCHI, Michitaka	KUROTANI, Kenichi**	
	27. Tropical Bioresources	Screening of tropical plant resources and their utilization for environmentally friendly agriculture responding to diversification of food demand and climate change.	EHARA, Hiroshi			NAKATA, Mana
	28. Genetic Information for Bioresoureces	Studies on genetic information for useful traits of bioresoureces to aim utilization and application of regional resources and sustainable development through environmental conservation.	INUKAI, Yoshiaki			
	29. Practical Studies in Africa	Development of sustainable and appropriate technology for agricultural and forestry production, acclimation and dissemination of new resources and technologies, and social implementation based on research results in Africa		MAKIHARA, Daigo		
	30. Practical Studies in Asia	Studies on agriculture and rural developmet including natural resources management in Asia for better livelihoods, poverty reduction and food security.		ITO, Kasumi		

**Designated Lecturer

(as of October 1. 2020)

Laboratories, Areas of Research, and Staff

Graduate School of Bioagricultural Sciences, Nagoya University

Department	Laboratory	Area of Research	Staff			
			Professor	Associate Professor	Lecturer	Assistant Professor
3. Animal Sciences	31 Animal Genetics and Breeding	Studies on the genetic basis of qualitative and quantitative traits in mammals and birds; evaluation, conservation and utilization of animal genetic resources; and development of new laboratory animal models for human disease and biological functions.		ISHIKAWA, Akira		YAMAGATA, Takahiro
	32 Genome and Epigenome Dynamics	Epigenetic regulatory systems for transposons and genes in vertebrates. Epigenome regulation during germ cell development. Geneme-epiegenome interactions during evolution.	ICHIYANAGI Kenji			
	33 Animal Morphology	Morphological studies on nervous and reproductive tissues in mammals and birds.	HONDO, Eiichi			
	34 Animal Integrative Physiology	Understanding the regulatory mechanisms of circadian rhythms and photoperiodism in vertebrates. Development of transformative bio-molecules that improve animal production and human health. Studies on physiological regulation of gene expression and release of growth factors in birds.	YOSHIMURA, Takashi	OHKAWA, Taeko		TSUKADA, Akira NAKAYAMA, Tomoya***
	35 Animal Reproduction	Basic studies on the neuroendocrinological mechanism regulating animal reproduction and its application to animal production and drug discovery.	TSUKAMURA, Hiroko	UENOYAMA, Yoshihisa	INOUE, Naoko	
	36 Animal Nutrition	Analysis of the causative genes and nutritional factors for metabolic diseases (type 2 diabetes and fatty liver etc.) in mammalian and avian species. Analysis of the uptake mechanism of biomolecules into avian eggs and its application to production of valuable protein.	HORIO, Fumihiko (Scheduled to retire in March 2021)	MURAI, Atsushi	KOBAYASHI, Misato	
	37 Animal Production Science	Studies on regulatory mechanism of physiological functions in ruminants and its utilization for animal production.	OHKURA, Satoshi	MATSUYAMA, Shuichi		MORITA, Yasuhiro***
	38 Avian Bioscience	Molecular mechanisms of the skeletal paterning and evolution of the vertebrate morphogenesis. Functional genomics-based identification of genes that control avian-specific life phenomenon. Production of avian model animals by genetic modification and use thereof.	NISHIJIMA, Ken-ichi	SUZUKI, Takayuki		
	39 Fish Biology	Morphological, physiological, and behavioral studies of the brain, sensory receptors, motor systems, and peptidergic neurons in aquatic animals.	YAMAMOTO, Naoyuki	ABE, Hideki		GOTO, Maki HAGIO, Hanako***
	40 Sericulture and Entomoresources	Molecular mechanisms of baculovirus infection, baculovirus-host interaction and antiviral responses in insects.	IKEDA, Motoko			
	41 Applied Entomology	Studies on the development of insect pest management methodology via physiological and molecular approaches.		MIURA, Ken	MINAKUCHI, Chieka	

**Designated Lecturer
***Designated Assistant Professor

(as of October 1. 2020)

Laboratories, Areas of Research, and Staff

Department	Laboratory	Area of Research	Staff			
			Professor	Associate Professor	Lecturer	Assistant Professor
4. Applied Biosciences	42. Organic Chemistry	Bioorganic studies on naturally occurring organic molecules possessing novel structure and biological activity: development of new synthetic methodologies, total synthesis of natural products, elucidation and control of the biofunctions.	NISHIKAWA, Toshio	NAKAZAKI, Atsuo		
	43. Bioactive Molecules	Studies on identification, action mechanisim, biosynthesis and receptor of bioactive natural products (hormones, antibiotics, etc.) produced by plants, microorganisms, and marine organisms.	OJIKA, Makoto	NAKAGAWA, Yu	KONDO, Tatsuhiko	
	44. Chemical Biology of Natural Products	Isolation, structure determination, synthesis, biosynthesis, and modes of action of bioactive natural products that regulate biologically and physiologically intriguing phenomena. Anesthetic substances from venomous mammals, and key substances for marine symbiotic relationships. Development of new analytical methods for target molecules using fluorescent probes.	KITA, Masaki			MORITA, Maho
	45. Polymer Chemistry	Studies on controlled syntheses and functions of biomaterials and medical polymers including artificial glycoconjugates, biofunctional polymers and environmentally friendly synthetic polymers.	AOI, Keigo	NOMURA, Nobuyoshi		
	46. Food and Biodynamics	Chemical biology of electrophilic ligands, such as lipid peroxidation products and functional food molecules.		SHIBATA, Takahiro		
	47. Applied Enzymology	Mechanistic enzymology of pyridoxal and flavin enzymes. Physiological function of amino acids. Microbial and enzymatic production of useful substances. Lipid biosynthesis in Archaea.	YOSHIMURA, Tohru (Scheduled to retire in March 2022)	HEMMI, Hisashi	ITO, Tomokazu	
	48. Molecular Biotechnology	Molecular bioengineering for novel biomolecules, bioprocesses and analytical processes. Currently, novel monoclonal antibody screening, bioinformatics of transcription network, single molecule technology, and lipid engineering is major research topics.	NAKANO, Hideo	IWASAKI, Yugo	KOJIMA, Takaaki	DAMNJANOVIC, Jasmina
	49. Molecular and Cellular Regulation	Biochemical and molecular cell biological studies on signal transduction, intracellular traffic, gene expression regulation in animal cell differentiation, growth and cell death.		SHIBATA, Hideki	TAKAHARA, Terunao	
	50. Molecular Bioregulation	Biochemistry and molecular cell biology on the biosynthesis and dynamics of proteins, nucleic acids and glycoconjugates in higher animal and plant bodies, and on the function of proteins and glycoconjugates in immunity, fetilization, development, and differentiation.		NADANO, Daita		OHSHIMA, Kenji
	51. Glyco-Life Science	Interdisciplinary studies between bioagricultural, medicinal, and pharmaceutical sciences on regulatory mechanisms for glycans-involved phenomena to attain better health, environment, and food	SATO, Chihiro			HANE, Masaya***
	52. Animal Cell Function	Studies on roles of cell surface glycan chains in the cell-cell interaction and signal transduction in fertilization, early development, neural functions and immunological phenomena.	KITAJIMA, Ken			WU, Di
	53. Animal Cell Physiology	Studies on fucntions of extracellular matrix, transporter proteins, and signal transduction.		MATURANA, Andrés Daniel	NIIMI, Tomoaki	
	54. Nutritional Biochemistry	Nutritional regulation of enzyme and gene expression in mammals. Molecular mechanisms for hepatocyte differentiation in 3-dimensional culture systems. Physiological significance of liver circadian rhythm. Metabolism and physiological functions of branched-chain amino acids.		ODA, Hiroaki	KITAURA, Yasuyuki	
	55. Soil Biology and Chemistry	Studies on the microbial population, and the chemical and biological processes occurring in the paddy field ecosystem.	ASAKAWA, Susumu		WATANABE, Takeshi	
	56. Applied Microbiology	Molecular and chemical genetic studies on signal transduction and gene regulation of agriculturally and industrially important microorganisms, especially filamentous fungi.	KOBAYASHI, Tetsuo (Scheduled to retire in March 2021)	KIMURA, Makoto		
	57. Plant Signaling	Studies on molecular mechanisms underlying optimization of plant growth and development in response to environmental cues with focusing on phytohormone function.	SAKAKIBARA, Hitoshi	KIBA Takatoshi	TABATA, Ryo** HASHIMOTO, Mimi	

58. Biochemistry	Biochemical, molecular genetic, and microscopic studies on regulatory mechanisms of development of plant organs such as flowers, pollen grains, and roots.		ISHIGURO, Sumie		MAEO, Kenichiro
59. Molecular and Functional Genomics	Biochemical, cellular and genetic studies on molecular mechanisms of chlorophyll biosynthesis, nitrogen fixation, circadian rhythm and phytochrome signal transduction in cyanobacteria and plants.	FUJITA, Yuichi	YAMASHINO, Takafumi		YAMAMOTO, Haruki TANAKA, Natsuki***
60. Photosynthesis Research	Studies on molecular functions and regulation of membrane proteins that support photosynthesis and inorganic nutrient acquisition in plants and cyanobacteria.				MAEDA, Shin-ichi NAKANISHI, Yoichi
61. Developmental Signaling Biology	Studies on regulatory mechanisms of biochemical and molecular processes involved in the growth and development of higher plants.	MORI, Hitoshi			
62. Plant Cell Function	Molecular mechanisms of plant growth and development, and their regulation in response to evironmental signals..	HATTORI, Tsukaho (Scheduled to retire in March 2021)	UEGUCHI, Chiharu TAKEDA, Shin		
63. Plant Metabolic System	Studies on biological functions and regulatory mechanism of plant metabolism.	HIRAI, Masami			
64. Metabolic Balance of Ecosystem	Methodology development of analysis of metabolic balance of ecosytem and its application to applied sciences.	KIKUCHI, Jun			

**Designated Lecturer
***Designated Assistant Professor

(as of October 1. 2020)

Admission Data for the Doctoral Program of Academic Year 2020 (Jan.2020)

専　　攻 Department	入学定員 Admission Quota	志願者数 Number of Applicants	受験者数 Number of Examinees	合格者数 Number of Successful Applicants
森林・環境資源科学専攻 Forest and Environmental Resources Sciences	6	1［1］(0)	1［1］(0)	1［1］(0)
植物生産科学専攻 Plant Production Sciences	9	1［1］(0)	1［1］(0)	1［1］(0)
動物科学専攻 Animal Sciences	7	1［0］(0)	1［0］(0)	1［0］(0)
応用生命科学 Applied Biosciences	16	2［0］(0)	2［0］(0)	2［0］(0)
計 Total	38	5［2］(0)	5［2］(0)	5［2］(0)

注)［　］: distinguished students who are holding a job
　　(　) : foreign students